

AMENDMENTS

In the Claims

1. (Currently Amended) A voice access system for enabling voice access to an enterprise data system, comprising:

a voice recognition unit [[to]], wherein

the voice recognition unit is configured to

receive user input, the user input ~~requesting~~ configured to request an ad  
hoc query be performed against data stored by the enterprise data  
system using a spoken natural language query,

[[to]] send query criteria corresponding to the ad hoc query request to the  
enterprise data system,

[[to]] receive data from the enterprise data system based on the query  
criteria, and

[[to]] provide feedback data corresponding to data received from the  
enterprise data system in a verbal format to the user via the  
telephone connection,

the voice recognition unit comprises a voice recognition server and a voice  
recognition client, and

The voice recognition client is configured to submit voice waveform data  
to the voice recognition server, and the voice recognition server is  
configured to convert the voice waveform data into text data and to  
send the text data back to the voice recognition client; and

a speech processing server, coupled to the voice recognition unit via a computer network,  
configured to determine the query criteria by converting the spoken natural  
language query into a data request in a text form and identifying one or more  
objects and data criteria corresponding to the spoken natural language query  
based on the data request.

2. (Previously Presented) The voice access system of claim 1, wherein the voice  
recognition unit is further to:

authenticate the user with the voice access system using a login process in which the user is identified by a unique user identifier;  
determine enterprise log-in data that enables the user to access the enterprise data system, based on the unique user identifier for the voice access system; and  
automatically log the user into the enterprise data system using the enterprise data system log-in data.

3. (Previously Presented) The voice access system of claim 2, wherein the voice recognition unit is linked in communication with a local database in which a plurality of unique identifiers and corresponding pass-codes are stored, and wherein the voice recognition unit is further to:

receive user-identification information from the user via the telephone connection;  
compare the user-identification information with user-identification data stored in the local database; and  
authenticate the user if the user-identification information received from the user matches the user-identification data stored in the local database.

4. (Previously Presented) The voice access system of claim 1, wherein the voice recognition unit comprises a client-side module that enables the voice recognition unit to access the enterprise data system as a client.

5. (Previously Presented) The voice access system of claim 1, wherein the voice recognition unit comprises a voice recognition component that converts voice waveform data into text data.

6. Cancelled.

7. (Currently Amended) The voice access system of claim 1, wherein the voice recognition unit ~~includes~~ comprises voice application to manage interactions between users of the voice access system and the voice access system.

8. **(Currently Amended)** The voice access system of claim 1, wherein the voice recognition unit ~~includes~~ comprises a text-to-speech server to convert text data into computer-generated audible speech corresponding to the data retrieved from the enterprise data system.

9. (Cancelled)

10. **(Currently Amended)** The voice access system of claim 1, wherein the enterprise data system ~~includes~~ comprises an object manager and data manager, wherein the voice recognition unit is further to pass information corresponding to any objects and data criteria that are identified to the object manager,

wherein the enterprise data system formulates a data query based on the objects and data criteria passed to the object manager in consideration of enterprise database schema information available to the data manager and returns data retrieved by the data query to the voice recognition unit.

11. **(Previously Presented)** The voice access system of claim 1, wherein the voice recognition unit is further to:

authenticate the user with the voice access system using a login process in which the user is identified by a unique user identifier;  
retrieve data pertaining to a selected object for the user from the enterprise database through use of the unique user identifier; and  
provide feedback data corresponding to any data that are retrieved in a verbal format to the user via the telephone connection.

12. **(Currently Amended)** A voice access system for enabling voice access to an enterprise data system, comprising:

a voice recognition unit configured to receive user input via a telephone connection,  
the voice recognition unit ~~including~~ comprising a voice user interface to enable the user to navigate and query data from a plurality of domains using spoken navigation and natural language query commands, wherein each domain comprises data corresponding to a respective type of object in the enterprise data system, and

to provide feedback data in a verbal format to the user via the telephone connection in response to spoken navigation and natural language query commands, said feedback data ~~including~~ comprising data corresponding to data retrieved from the enterprise data system in response to the natural language query commands and system prompts in response to the spoken navigation commands.

16. (Previously Presented) The voice access system of claim 15, wherein the voice recognition unit is further to:

enable the user to request detail information corresponding to an item that is currently being browsed;  
generate a data request to receive detail information from the enterprise data system corresponding to the item currently being browsed;  
submit the data request to the enterprise data system;  
receive data from the enterprise data system comprising detail information corresponding to the item currently being browsed; and  
read the detail information to the user via the telephone connection.

13. (Previously Presented) The voice access system of claim 12, wherein the voice recognition unit is further to:

authenticate the user with the voice access system using a login process in which the user is identified by a unique user identifier;  
determine enterprise log-in data that enables the user to access the enterprise data system, based on the unique user identifier for the voice access system; and  
automatically log the user into the enterprise data system using the enterprise data system log-in data.

14. (Currently Amended) The voice access system of claim 12, wherein the data retrieved from the enterprise data system ~~includes~~ comprises a plurality of data sets pertaining to an object to which the query corresponds to, and wherein the voice recognition unit is further to enable the user to browse the plurality of data sets.

15. (Previously Presented) The voice access system of claim 12, wherein the query comprises a request to retrieve data corresponding to a domain the user is currently in and the data retrieved from the enterprise data system ~~includes~~ comprises a plurality of data sets comprising header data identifying items pertaining to the domain the user is currently in, and wherein the voice recognition unit is further to:

enable the user to browse the header data on an item-by-item basis using navigation commands; and

read the header data corresponding to each item in response to a user navigation to that item.

16. Cancelled.

17. (Previously Presented) The voice access system of claim 12, wherein the voice recognition unit is further to:

maintain navigation tracking information for the user that identifies navigation locations the user has previously navigated to; and

select system prompts based on the navigation tracking information for the user such that the user is presented with a different system prompt if the user has not previously navigated to a current navigation location than the user is presented with if the user has previously navigated to the current navigation location.

18. (Currently Amended) A voice access system for enabling voice access to an enterprise data system, comprising:

a voice recognition unit configured to receive user input via a telephone connection, the user input requesting an ad hoc query be performed using a spoken natural language query, to retrieve data corresponding to the ad hoc query, and to provide feedback data corresponding to the retrieved data in a verbal format to the user via the telephone connection;

a speech processing server, coupled to the voice recognition unit via a computer network, to convert the spoken natural language query into a data request; **[[and]]**

a local database, coupled to the voice recognition unit and the speech processing server via the computer network, to store pre-compiled data in a form corresponding to a

set of grammars comprising a language and syntax defining a format in which data are phonetically represented, wherein the data is retrieved from at least one of the enterprise data system and the local database; and

a compilation server, wherein the compilation server is configured to

enable an administrator to define a set of objects for which data in the enterprise data system are to be pre-compiled;

enable the administrator to define a schedule identifying when data corresponding to the set of objects are to be pre-compiled; and

automatically pre-compile data corresponding to those objects based on the schedule.

19. (Original) The voice access system of claim 18, wherein header data that are used to identify objects are stored in the local database while detail data corresponding to the objects are stored in the enterprise data system.

20. Cancelled.

21. (Currently Amended) A voice access system for enabling voice access to an enterprise data system, comprising:

a voice recognition unit configured to

receive user input via a telephone connection,

[[to]] authenticate the user with the voice access system using a login process in which the user is identified by a unique user identifier,

[[to]] enable the user to request to call a person or entity using a spoken command,

[[to]] determine a telephone number for the person or entity through query of the enterprise data system in response to the spoken command, and

[[to]] transfer the initial telephone connection to a new connection that connects the user with the person or entity via the telephone number for the person or entity,

the voice recognition unit comprises a voice recognition server and a voice recognition client, and

The voice recognition client is configured to submit voice waveform data to the voice recognition server, and the voice recognition server is configured to convert the voice waveform data into text data and to send the text data back to the voice recognition client; and

22. (Previously Presented) The voice access system of claim 21, wherein the voice recognition unit further to:  
determine enterprise log-in data that enables the user to access the enterprise data system, based on the unique user identifier for the voice access system; and  
automatically log the user into the enterprise data system using the enterprise data system log-in data.

23. (Previously Presented) The voice access system of claim 21, wherein the voice recognition unit is further to reconnect the user to the voice access system after the call to the person or entity has been completed.

24. (Original) The voice access system of claim 23, wherein the user is reconnected to the voice access system such that the user is returned to a navigation context that the user had prior to transfer of the initial telephone connection to the new connection.

25. (Previously Presented) The voice access system of claim 1, wherein the voice recognition unit comprises a telephony interface for receiving the user input via the telephone connection.

26. (Previously Presented) The voice access system of claim 1, wherein the voice recognition unit comprises a network interface to couple the voice recognition unit to the enterprise data system via the computer network.

27. (Previously Presented) The voice access system of claim 1, wherein the speech processing server comprises a network interface to couple the speech processing server to the voice recognition unit via the computer network.

28. (Previously Presented) The voice access system of claim 12, wherein the voice recognition unit comprises a telephony interface for receiving the user input via the telephone connection.

29. (Previously Presented) The voice access system of claim 12, wherein the voice recognition unit comprises a network interface to couple the voice recognition unit to the enterprise data system via the computer network.

30. (Previously Presented) The voice access system of claim 12, further comprising a speech processing server having a network interface to couple the speech processing server to the voice recognition unit via the computer network.

31. (Previously Presented) The voice access system of claim 18; wherein the voice recognition unit comprises a telephony interface for receiving the user input via the telephone connection.

32. (Previously Presented) The voice access system of claim 18, wherein the voice recognition unit comprises a network interface to couple the voice recognition unit to the enterprise data system via the computer network.

33. (Previously Presented) The voice access system of claim 18, wherein the speech processing server comprises a network interface to couple the speech processing server to the voice recognition unit via the computer network.

34. (Currently Amended) The voice access system of claim 18, ~~further comprising a~~ wherein the compilation server[[,]] is coupled to the enterprise data system and the local database, to pre-compile the data into a form corresponding to the set of grammars.



35. (Previously Presented) The voice access system of claim 21, wherein the voice recognition unit comprises a telephony interface for receiving the user input via the telephone connection.

36. (Previously Presented) The voice access system of claim 21, wherein the voice recognition unit comprises a network interface to couple the voice recognition unit to the enterprise data system via the computer network.

37. (Previously Presented) The voice access system of claim 21, further comprising a speech processing server having a network interface to couple the speech processing server to the voice recognition unit via the computer network.